MATHEMATICAL MEASUREMENT OF THE CONCORDANCE BETWEEN PARTY DOCTRINE AND CANDIDATE SPEECH -A CREATIVE APPROACH TO ANALYZING POLITICAL DISCOURSE

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Abstract. This paper analyses the 2009 Romanian presidential election campaign, starting from the discursive conduct of the second round candidates, Traian Băsescu and Mircea Geoană. We have looked at the way in which the two candidates relate themselves to and/or promote the doctrines of their supporting parties: The Democratic Liberal Party and the Social Democratic Party. In order to outline the theoretical and methodological frame required by the analysis, we have suggested the term of accord to refer to the adequacy/correspondence between the party's program and that of the supported candidate. The accord will be described by using a mathematical model capable of representing the relations between the two categories of discourse. Approaching the accord between the party's program and that of the candidate was done from three perspectives: thematic, actional and axiological. Thematically speaking, we are interested in the extent to which the approached topics, the terms and the concepts by means of which the problems are identified in the discourse of the candidate are also found in the discourse of his party. In terms of action, we shall analyze the extent to which the same type of solutions to the same type of problems can be found in the two discourses. Axiologically speaking, we shall emphasize the common values promoted in the discourses of the candidates and political parties involved in the electoral race. We have resorted to content analysis to approach the candidates' discourses and the parties' political programs.

Keywords: political discourse; thematic accord; actional accord; axiological accord; political communication, Romania.

From political doctrine to electoral platform: theoretical and methodological specifications

To approach the (dis)accord between the parties' political platforms and the candidates' election platforms, we have started from the finding that these convey themes or topics of national concern in an attempt to cover sectors or areas as wide as possible of the social reality. For the analysis, we have resorted to the following documents: *The governing political program of the Alliance Social Democratic Party + Conservative Party 2008-2012.10 commitments to Romania* (www.psd.ro, December 2009), *The governing program of the Democratic Liberal Party* (2009-2012) (www.pdl.org.ro, December 2009), *Romania, one country – The political program of the candidate Mircea Geoană* (www.mirceageoana.ro, December 2009), *The political program of the candidate Traian Băsescu* (www.basescu.ro, December 2009).

As a research method for the discourses, we have used content analysis as it allows an objective, systematic and quantitative description of the manifest content of a communication. The method refers to the quantitative analysis of documents, aiming at

highlighting certain themes, tendencies, attitudes, values, patterns that are based upon a mechanism of converting a qualitatively symbolic material into a quantitative one. Therefore, we have separated the discourses into simple elements / themes in order to quantify, classify or hierarchize them. The quantitative analysis of these discourses will allow us to draw comparisons between the "communications" of parties and those of the candidates.

We have regarded objectivity and exactness as two characteristics that are compulsory for the analysis of documents and that is why we have used an encoding graph for the (sub)domains that the political/electoral programs refer to (Volkens, 2005, pp.10-19). This graph consists of the set of the domains characteristic of the electoral/political discourses. In this set, we have included the following domains: 1) foreign policies, 2) freedom and democracy, 3) political system, 4) economy, 5) prosperity and life quality, 6) society structure and 7) social classes, groups and categories.

The seven domains are divided into 56 subdomains. Thus, the domain of Foreign policies is divided into: special foreign policies (positive or negative mentions), antiimperialism, military (positive or negative mentions), peace, the European Community (positive or negative mentions), internationalism (positive or negative mentions). The domain Freedom and democracy consists of: freedom and human rights, democracy and the constitutional system (positive or negative mentions). The third domain includes the following subdomains: (de)centralization, governmental and administrative efficiency, political corruption and political authority. The fourth domain, Economy, contains: free initiative, market regulation, stimulation, economic planning, corporatism, protectionism, (positive or negative mentions), other economic goals, productivity, technology and infrastructure, controlled economy, nationalization, economic practice. The domain Prosperity and life quality comprises: environment protection, culture, social justice, extending social assistance, limiting social assistance, extending education, limiting education. The sixth domain, Society structure, is subdivided into: the national way of life (positive or negative mentions), traditional morality (positive or negative mentions), law and order, social harmony, multiculturalism (positive or negative mentions). The last domain covers the following subdomains: laboring groups and categories (positive or negative mentions), agriculture and farmers, the middle class and professional groups, underprivileged minority groups, demographic groups.

The encoding unit or the analyzed semantic unit from a political program is represented by the "statement" defined as an argument. In its shortest form, a statement contains a noun, a verb and an adjective, but political documents are rich in long statements that combine two or several arguments, usually separated by commas, semicolons or colons. The encoding starting point is represented by the statement, but what we are aiming at is, in fact, the argument (Volkens, 2005, pp.27- 39). This is the expression of a political idea or a political aspect. We may use punctuation as a guiding principle in identifying arguments. Each argument must be placed in one of the seven domains, respectively subdomains that we have previously enumerated.

Political doctrine vs. electoral platform: doctrinal virtuality, discursive realization

We shall consider the political program of a party P as being a set of pairs of the form (T, S), where T is a class of problems / themes (from a certain domain Dom), and S

represents the class of solutions by means of which these problems are solved. The party's program will be $P(P) = \{(T_1, S_1), (T_2, S_2), ..., (T_m, S_m)\}$.

A candidate C in the presidential elections is an element from the Party P, $C \in P$. For a candidate C we may define its program P(C) as a set of couples (t, s), where t represents a problem, and s a solution to it. The program of the candidate will be $P(C) = \{(t_1, s_1), (t_2, s_2), ..., (t_n, s_n)\}$. For example, a candidate identifies, in his electoral discourse, the problem t="the citizen's relationship to the administration" for which he finds the solution s= "restructuring, dismissals in the central or local administration".

The accord between the party's program and that of the candidate may be approached from three perspectives: thematic, actional and axiological. *Thematically* speaking, we are interested in the extent to which the approached topics, the terms and the concepts by means of which the problems are identified in the discourse of the candidate are also found in the discourse of his party. In terms of *action*, we shall analyze the extent to which the same type of solutions to the same type of problems can be found in the two discourses. *Axiologically* speaking, we shall emphasize the common values promoted in the discourses of the candidates and of the political parties involved in the electoral race.

A. The party's problems - the candidate's problems: thematic (dis)accord of programs

To measure the thematic accord between the discourse of a candidate and that of his party we shall take into account two mathematical relations that we shall compare with 50%. Thus, let us consider n = the number of elements from the candidate's program <math>P(C) and m = the number of elements from the party's program <math>P(P), as in (1):

$$n=|P(C)|, m=|P(P)| \tag{1}$$

If r is the number of problems of P(C) that have a correspondent (by particularization) in classes of problems from P(P), then the relation r/n represents the extent to which the themes from the doctrine of the party P can be found in the program of its candidate, and the relation r/m represents the extent to which the themes of the candidate can be found in those of the party.

If $r/n \ge 50\%$, then we shall say that there is a *P-thematic accord between the program of C* and the program of *P*, and if $r/m \ge 50\%$, then we shall say that there is a *C-thematic accord between the program of C* and the program of *P*. In other words, if at least half the themes approached by *C* in his program can be obtained by particularizations of the party's doctrine, then we are dealing with a *C*-thematic accord. On the other hand, when *C* approaches, in his electoral program, at least half the themes from the electoral program of the party that he represents (obviously, under a particularized form), then we are dealing with a *P*-thematic accord (Pătruț & Pătruț, 2010, pp.22- 24).

We shall note by *part_t* the thematic particularization function and we will be able to calculate the factor of thematic accord according to the formula below (2):

$$conc_{t}(C,P) = |\{e = (t,s) \mid e \in P(C) \land \exists E = (T,S) \in P(P) : part_{t}(T,t)\}|$$
 (2)

Figure 1 contains a graphic representation of the notions previously presented, in a certain case.

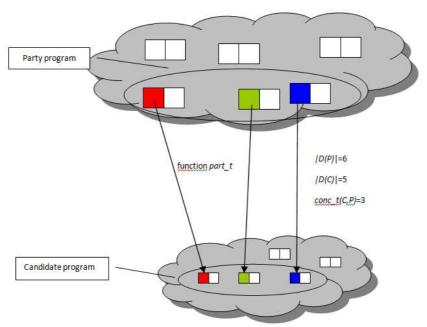


Figure 1. The problem of thematic accord

B. The party's solutions - the candidate's solutions: actional (dis)accord of programs

In order to measure the actional accord between the discourse of a candidate and that of his party we may take into consideration two relations that we shall compare with 50%, just like in the case of the thematic accord. However, let us not forget that we cannot regard two elements $e \in P(C)$ and $E \in P(P)$ as being in actional accord unless they are already in thematic accord.

To measure the two types of actional accord of two discourses, one of a candidate *C* and the other of a party *P*, we shall use both the function of thematic particularization *part_t*, as well as a new function, that of actional particularization, that we shall note by *part_s*. If *part_t* places into correspondence a general class of problems with a problem that is characteristic of the presidential election, *part_s* performs a similar correspondence between a general class of solutions (a general method for solving certain problems) and a particular solution.

Thus, let us consider n=the number of elements (pairs of the type (problem, solution)) of P(C) and m=the number of elements of P(P). Let there r be the number of classes of problems of P(P) that have a correspondent (by particularization) in problems from P(C). As it has been shown, if $r/n \ge 50\%$, then we will say that there is a P-actional accord between P0 and P1. It is possible that from the P1 problems of P(P) that can be found in P(C)2, part of them may be solved by the candidate differently from his party.

We will note *part_s* the function of actional (solving) particularization and we will calculate the number of actional accord thus (3):

$$conc_s(C,P) = |\{e=(t,s); e \in P(C) \land \exists E = (T,S) \in P(P) : part_t(T,t) \land part_s(S,s) \}|$$

Therefore, between the discourse of the candidate and the discourse of his party, there is: *C*-actional accord, if $conc_s(C,P) / |P(C)| \ge 50\%$ and *P*-actional accord, if $conc_s(C,P) / |P(P)| \ge 50\%$ (Pătruț & Pătruț, 2010, pp.25- 26).

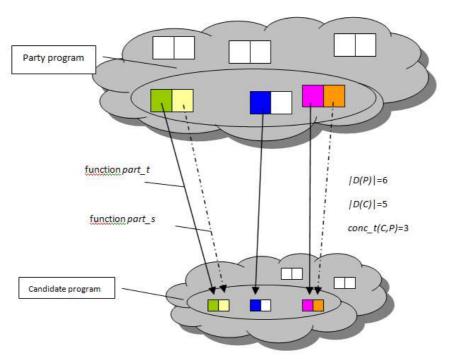


Figure 2. The problem of actional accord

In other words, if at least half the themes approached by \mathcal{C} in his discourse have solutions that can be obtained by particularizations of the solutions of the party P to the same type of problems, then we are dealing with a C-actional accord. And when C approaches and solves at least half the themes from the party's electoral program in the manner suggested by the party, we say that we are dealing with a P-actional accord. Figure 2 is a graphic representation of the presented notions.

C. The party's values - the candidate's values: axiological (dis)accord of discourses

The political program reflects a party's or a candidate's reason of being at a given time or period. The program represents the synthesis of the political principles and values that are regarded as emblematic for that party or candidate. The political values found in the programs of political parties are those that have been established in time (freedom, equality, justice, personal initiative, ownership, lawfulness, constitutional state, tolerance, solidarity, responsibility) or that have been propelled into the present by various events or requirements (globalization, European integration, ecology).

In order to study the (dis)accord between the political programs of parties and the electoral program of the candidates supported by the respective parties, we have also

resorted to the identification of the political values conveyed by the two types of programs/discourses.

We have taken into consideration several terms that define political values and we have calculated their frequency of occurrence in the two electoral programs of the candidates, as well as in the political programs of the parties that supported the two candidates from the final of the presidential race.

We have paralleled the values promoted by each party with the values promoted by its candidate and thus we have identified three sets of values: values shared by the party and the candidate; values characteristic of the party and values characteristic of the candidate.

Just like in the case of the thematic or actional accord, we may calculate a *factor of axiological accord* by relating the number of common elements to the number of the elements from the two sets, that is, the number of values promoted by both sides as related to the number of values promoted by the party, respectively, by the candidate. Thus, we may speak about a *C-axiological accord* and about a *P-axiological accord* (Pătruț & Pătruț, 2010, pp.26- 27).

Case study: thematic, actional and axiological (dis)accord between the parties' programs and those of the candidates in the 2009 presidential elections

Taking into account the domains *Dom* that we have mentioned, analyzing the programs of the candidates of the SDP (Mircea Geoană) and of the DLP (Traian Băsescu) and comparing them both in terms of the problems, solutions and the values conveyed, we may identify the types of accord previously defined. In order to compare the problems and the solutions offered by the party and the candidate supported by it in the presidential elections, we have drawn, for each couple of candidate-party, a table as the one represented below, focusing upon the quantification of the thematic (TA) and actional (AA) accords between the programs (Pătruţ, 2011, pp.45-50).

In this case: conc_s(candidate, party) is 5 and conc_p(candidate, party) is 3.

Thus, we were able to quantify the total of the themes in the programs of the parties and candidates involved in the final of the 2009 presidential race: |P(MG)| = 29, |P(TB)| = 26, |P(SDP)| = 42 and |P(DLP)| = 49. Then, we also calculated the accords between the parties and the candidates (see equations (4)-(7)).

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conc_t("Mircea Geoană", "SDP") = 23
(4)

conc_s("Mircea Geoană", "SDP") = 16
(5)

conc_t("Traian Băsescu", "DLP") = 25
(6)

conc_s("Traian Băsescu", "DLP") = 14
(7)
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We can see that in the case of both candidates there is a *C-thematic accord*: Mircea Geoană draws on 23 themes or problems out of the 42 suggested by his party (54,76% \geq 50%) and Traian Băsescu's program contains 25 themes taken from the 49 that the DLP raised (51,02% \geq 50%). In the case of both candidates, there is a consistent inclusion of the party's doctrinal elements in their own electoral programs.

Table 1. Model for calculating the thematic and actional accord

Dom	Problems raised by the party	Solutions offered by the party	Problems raised by the candidate	Solutions offered by the candidate	ТА	AA
108	EU, NATO integration	Constitutional state, economic and political reforms, eliminating underdevelopment, national political consensus	EU integration	Adjusting domestic needs to the European model	*	
202	Citizen involvement	Referenda/ ballot questions	Election involvement	Mobilization and education, making people aware of the importance of voting	>	>
303	Improving public authorities	Reform, applying the law	Taxes and contributions	Cuts and reorganization		
304	Corruption	Accurate laws, powerful institutions, authority of the law	Corruption	Independence of justice, reducing bureaucracy, authority of the law	✓	✓
501	Environment protection	Preserving the ecosystem	Environment protection	Extending green spaces, developing alternative energy sources	✓	>
503	Decent standard of living	Equal access to education, health, housing	Decent standard of living	Cuts, assistance for the underprivileged categories	*	

Similarly, for both candidates, there is a *P-thematic accord*: out of the 29 themes included in the electoral program by Mircea Geoană, 23 are shared by the party or are particularizations of those belonging to the party (79,31%); in his electoral program, Traian Băsescu, too, allots a very large space to the themes taken or particularized from the DLP program: 96,15%, that is, 25 themes selected out of a total of 26 suggested themes. Practically, on the level of their own electoral programs, the candidates' inventiveness in terms of electoral themes is minimal, being replaced by a maximum conformation to the program suggested by the party.

According to the same calculus algorithm, we may calculate the total of the solutions suggested by the candidates and the parties supporting them: |P(MG)|=17, |P(TB)|=16, |P(SDP)|=19 and |P(DLP)|=23. Thus, we then find the existence of what we have defined by C- $actional\ accord$ for both candidates: Mircea Geoană has taken or adjusted 16 solutions out of the 19 offered by the SDP (84,21% \geq 50%) and Traian Băsescu has taken or particularized 14 solutions out of the 21 offered by the DLP (66,66% \geq 50%). Similarly, there is also a P- $actional\ accord$ in both cases since the candidates solve, to a large extent, the problems raised according to the way in which the party suggested

them to: 94,11% for Mircea Geoană (16 solutions taken from the program of the party out of the 17 proposed by the candidate) and 87,50 % for Traian Băsescu (14 solutions taken from the party's program out of the 16 suggested by himself).

Axiologically speaking, the program of the candidate Geoană conveys values characteristic of social democracy: market social economy, citizen social security, solidarity and social protection, citizen cooperation and dialogue, investment in education, research and the health sector, decentralization, professionalism and depolitization of local and central administration, the need to modernize the Romanian society, respect for the citizen, democracy and the constitutional state. Taking into account the interval of one year elapsed between the moment of designing the analyzed programs and the aggravation of the financial crisis in 2008-2009, the program of the SDP candidate pays increased attention to reforms, restructurings, planning and financial rationalization, work and social and individual responsibility, competitiveness and performance on all levels, efficiency, predictability and economic stability, optimism and hope for a better future, social dialogues among citizens or between citizens and government officials. An interesting fact is his appeal to the family and the community, to the cultural promotion of the country or to the protection of the environment. The values promoted by T. Băsescu in his program are largely taken from the program of his party and are inspired by the economic-financial crisis of Romania: modernization, society development or reform, democracy, constitutional state, social order and justice, tributariness and rural development, responsibility and involvement, love of the country and hope for its future, transparency, predictability and legislative stability, competence and entrepreneurial spirit, innovation, flexibility and constant learning, the need for solidarity, chance equality and cultural diversity. In the case of both candidates there is both a C-axiological accord and a P-axiological accord in terms of the values incorporated in their programs (Pătrut, Pătrut, & Cmeciu, 2014, pp.275-280).

Conclusions

Analyzing the accords between the parties' programs and those of the two finalists of the 2009 presidential elections we may wrongly conclude that the Romanian electoral debates mainly focus upon ideological problems and upon the analysis of the differences between the ideologies of the parties and/or candidates. We may also wrongly believe that the voters in our country own sound political knowledge and the majority votes according to the analyses applied to the political-ideological offers. In the national opinion polls that INSOMAR has carried out since 2004, 23% of the respondents do not know or do not answer when asked where they would place themselves on the right-left axis. From the respondents, the percentage of those regarded as ideologically competent is estimated to 25% at the most (Comşa, 2007, pp. 76-79). Moreover, the ideological elements taken by the candidates from their electoral programs and promoted in the public space during election campaigns are extremely few. Unfortunately, the candidates' interest in promoting the party's doctrine is actually done only theoretically, in brochures or on the Internet, and then is considerably diluted in (non)televised electoral debates. Probably, only the 25% of all the voters, those that are regarded as ideologically competent and that look for the data needed for the vote by themselves, benefit from this type of promotion.

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